

ECE-345-001 (Fall 2020)

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Review Test Submission: Quiz 9.8

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Course	Intro to Control Systems - Fall 2020 Section Group I67
Test	Quiz 9.8
Started	11/24/20 12:30 PM
Submitted	11/24/20 12:31 PM
Status	Completed
Attempt Score	4 out of 4 points
Time Elapsed	0 minute
Results Displayed	All Answers, Submitted Answers, Incorrectly Answered Questions

Question 1

1 out of 1 points



True or false? Nyquist diagrams can be used to assess relative stability.

- Selected Answer: True
- Answers: TrueFalse

Question 2

1 out of 1 points



For stability, the phase margin and gain margin must satisfy

- Selected Answer:  $G_M > 0$  and  $\Phi_M > 0$
- Answers:  $G_M > 0$  or  $\Phi_M > 0$   
 $G_M > 0$  and  $\Phi_M > 0$   
 $G_M > 0$   
 $\Phi_M > 0$

Question 3

1 out of 1 points



Gain margin and phase margin are determined in the Nyquist diagram by

- Selected Answer: The distance to the -1 point.
- Answers: The distance to the origin.  
The distance to the +1 point.  
The distance to the negative real line.  
The distance to the -1 point.

Question 4

1 out of 1 points



Gain margin is described by

- Selected Answer: the multiplicative gain factor required to make the negative real-axis crossing coincide with the -1 point
- Answers: the multiplicative gain factor required to make the negative real-axis crossing coincide with the origin  
the additive gain factor required to make the negative real-axis crossing coincide with the unit circle.  
the amount of gain that needs to be subtracted, in order to make the negative real-axis crossing coincide with the -1 point.  
the multiplicative gain factor required to make the negative real-axis crossing coincide with the -1 point